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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,266	12/05/2000	Chris Boardman	A33437 (065855.0122)	7871

21003 7590 09/15/2004

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NEW YORK, NY 10112

EXAMINER

HECK, MICHAEL C

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/730,266

Applicant(s)

BOARDMAN, CHRIS

Examiner

Michael C. Heck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The following is a First Office Action in response to the application filed 05 December 2000. Claims 1-18 are pending in this application and have been examined on the merits as discussed below.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "112" has been used to designate both a wholesale distribution database and input/output devices.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 220, 302 and 318. Please note the specification objection regarding item 316. If item 316 in the specification is changed to 318, then 316 must then be mentioned in the description.

4. The drawings are objected to because on figure 4, the block titled "client territory assignment file (where applicable)" is not addressed in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

"amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:
 - On page 3, line 16-17, delete "estimating sales activity of a product at sales outlets including sales outlets at which sales activity data is sampled and unsampled sales outlets is estimated", and insert -- estimating sales activity of a product at sales outlets including sales outlets at which sales activity data is sampled and unsampled is estimated --.
 - On page 8, lines 18 and 20, a "wholesale distribution database" and "various input and output devices" are both identified as item 112. Please see the drawing objection above referring to the same situation in Figure 1.

- On page 13, line 10, delete "(step 316)", and insert "--(step **318**) --". Please see the drawing objection regarding reference characters not mentioned in the description.

The above citation is a mere guide. Applicant is requested to review the specification thoroughly to eliminate additional errors. Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For the process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case,

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claims 1 and 7 only recite an abstract idea. As to **claim 1**, the recited steps of defining a first product specific universe using wholesale purchasing data to determine a product specific store size for a first plurality of retail outlets; defining a second product specific universe using sampled retail sales data to determine a product specific store size for a second plurality of retail outlets; applying geo-spatial projection to the first product specific universe and the second product specific universe to determine product specific projection factors for retail outlets in the first and second universe; and applying said product specific projection factors to sampled retail sales data for the product to estimate the sales of said specialty product in unsampled outlets does not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. The method only constitutes an idea for estimating the sales of specialty products, therefore, is deemed to be directed to non-statutory subject matter. As to **claim 7**, the recited steps of determining a product specific store size for a first plurality of retail outlets using wholesale sales data; determining a product specific store size for a second plurality of retail outlets using retail sales data, said retail sales data identifying a prescriber who authorized the sales; applying geo-spatial projection to the first plurality of retail outlets to determine product specific projection factors for the retail outlets for which sampled retail sales data is available; applying geo-spatial projection to the second plurality of retail outlets to determine product specific projection factors for the retail outlets for which sampled retail sales data is available; applying said product specific projection factors to sampled retail sales data for the product to estimate the total

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prescriber activity in a region of interest does not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. The method only constitutes an idea for estimating prescriber activity for specialty pharmaceutical products, therefore, is deemed to be directed to non-statutory subject matter.

As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implications of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble. In the present case, none of the recited steps are directed to anything in the technological arts as explained above. Looking at the claim as a whole, nothing in the body of the claim recites any structure or functionality to suggest that a computer performs the recited steps. Therefore, the preamble is taken to merely recite a field of use.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces an estimate of sales of specialty products and an estimate of prescriber activity for specialty pharmaceutical products (i.e., repeatable) for unsampled outlets and a region of interest (i.e., useful and tangible).

Looking at the claims as a whole, nothing in the body of the claims recite any structure or functionality to suggest that a computer performs a task.

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, the same rejection as stated above for claims 1 and 7 applies to **claims 2-6 and 8-11**.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Felthaus et al. (U.S. Patent 5, 420, 786) in view of Berne (Berne, Supply Chain Savvy, Food Engineering, 1 August 1999 [GOOGLE]). Please note that the examiner interprets store size per the applicant's specification as the volume of sales for the specific product of interest (p. 10, lines 6-7). The examiner also notes that the sales data regardless of source is still sales data. That is, for example, data regarding sales received from a wholesale operation versus a retail operation is still sales data or demand for a manufacturer. The customer is the difference. Therefore, the sum of the sources of sales data equates to the total sales data. Felthaus et al. discloses a system and method for estimating product distribution using a product specific universe comprising:

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- **[Claim 1]** defining a first product specific universe using wholesale purchasing data to determine a product specific store size for a first plurality of retail outlets (col. 5, lines 50-61, Felthausen et al. teach sampled sales outlets and unsampled sales outlets in an area. The outlets may be pharmacies or other type of retail stores or distribution establishments all of which distribute a particular product. The examiner interprets pharmacies or other types of retail stores represent a group and distribution establishments represent another group, i.e., retail stores versus wholesale distributors.);
- defining a second product specific universe using sampled retail sales data to determine a product specific store size for a second plurality of retail outlets (col. 5, lines 50-61, Felthausen et al. teach sampled sales outlets and unsampled sales outlets in an area. The outlets may be pharmacies or other type of retail stores or distribution establishments all of which distribute a particular product. The examiner interprets pharmacies or other types of retail stores represent a group and distribution establishments represent another group, i.e., retail stores versus wholesale distributors.);
- applying geo-spatial projection to the first product specific universe and the second product specific universe to determine product specific projection factors for retail outlets in the first and second universe (col. 4, lines 17-51, Felthausen et al. teach sales of a particular product are sampled at a first group of the pharmacies and are sent to a central station having a main processor and a group of work station processors. In the main processor, data representing the distances between the first group of pharmacies and each other pharmacy are generated. A weighting factor for the sales of the particular product at each of the sampled pharmacies in a neighborhood of the other pharmacy is generated.); and
- applying said product specific projection factors to sampled retail sales data for the product to estimate the sales of said specialty product in unsampled outlets (col. 2, line 59 to col. 3, line 25, and col. 9, lines 23-43, Felthausen et al. teach nearest neighboring outlet activity sources within spatial proximity of each known but unsampled outlet are identified and the estimate of unsampled outlets is assembled by processing information on the discrete spatial correlation pattern among neighboring activity sources. The distance between the selected sampled sales outlets and the unsampled sales outlets are combined with parameter characteristics characterizing each sales outlet to form a signal representing an estimate of sales of the product at the unsampled sales outlet. The estimated sales of the particular product is then generated for a range of unsampled stores according to the summation of the weighting factor of a sampled store times the sales volume for the same store.).

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- **[Claim 7]** determining a product specific store size for a first plurality of retail outlets using wholesale sales data (col. 5, line 59 to col. 6, line 8, Felthausen et al. teach the outlets may be pharmacies or other type of retail stores or distribution establishments all of which distribute a particular product. Product sales data generated at each outlet is preferably transferred to the central station via a line. The examiner interprets pharmacies or other types of retail stores represent a group and distribution establishments represent another group, i.e., retail stores versus wholesale distributors.);
- determining a product specific store size for a second plurality of retail outlets using retail sales data, said retail sales data identifying a prescriber who authorized the sales (col. 3, lines 49-66, and col. 5, line 59 to col. 6, line 8, Felthausen et al. teach prescription sales for a prescribing physician in an area including sampled prescription sales outlets. The outlets may be pharmacies or other type of retail stores or distribution establishments all of which distribute a particular product. Product sales data generated at each outlet is preferably transferred to the central station via a line. The examiner interprets pharmacies or other types of retail stores represent a group and distribution establishments represent another group, i.e., retail stores versus wholesale distributors.);
- applying geo-spatial projection to the first plurality of retail outlets to determine product specific projection factors for the retail outlets for which sampled retail sales data is available (col. 4, lines 17-51, Felthausen et al. teach sales of a particular product are sampled at a first group of the pharmacies and are sent to a central station having a main processor and a group of work station processors. In the main processor, data representing the distances between the first group of pharmacies and each other pharmacy are generated. A weighting factor for the sales of the particular product at each of the sampled pharmacies in a neighborhood of the other pharmacy is generated.);
- applying geo-spatial projection to the second plurality of retail outlets to determine product specific projection factors for the retail outlets for which sampled retail sales data is available (col. 4, lines 17-51, Felthausen et al. teach sales of a particular product are sampled at a first group of the pharmacies and are sent to a central station having a main processor and a group of work station processors. In the main processor, data representing the distances between the first group of pharmacies and each other pharmacy are generated. A weighting factor for the sales of the particular product at each of the sampled pharmacies in a neighborhood of the other pharmacy is generated.);

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- applying said product specific projection factors to sampled retail sales data for the product to estimate the total prescriber activity in a region of interest (col. 4, line 52 to col. 5, line 17, Felthaus et al. teach sales of a prescription product of a prescribing physician are sampled at a first group of the pharmacies. The distance between the each of selected pharmacies and each other pharmacy is generated and a signal representative of the total sales of each pharmacy is stored. A weighting factor for each sampled pharmacy in a neighborhood of an unsampled pharmacy is generated. The sales volume of the prescription product for the prescribing physician is estimated using the prescription product sales volume for the physician at the pharmacy and the weighting factor.)

Felthaus et al. fail to teach using wholesale purchasing data. Berne teaches supply chain solutions streamlines operations and upstream/downstream links, from raw materials through distribution producing corporate-wide efficiencies. Over the past five years, Kraft has installed software for finance, human resources and resource development. The company is now implementing the Prism system to optimize their supply chain control. The manufacturing process begins with a sales forecast. The input produces a production model working backwards to include where products will be sold, where they need to be shipped and the source plant for these products. The result is a plant production schedule. The software allows Kraft's conversion plants to develop and run production models for specific products with the ability to update model assumptions on a real time basis. Russell Stover Candies, in order to respond to customer requirements, has pressured suppliers to supply material fast and with less lead-time than ever before. To achieve the level of agility and responsiveness, it is essential to have access to accurate, real-time information and greater visibility into the entire supply chain. The extends to the time an order comes in, to anticipate delivery date, to when and how materials are coming in, to manufacturing constraints,

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and more since chocolate is a perishable product with a limited shelf life. Berne further teaches a Global Pipeline. Whether you are a food importer, manufacturer importing raw materials or exporting finished products, having a clear view into the global supply chain pipeline is vital. Liberty Richter, a specialty food importer representing more than 80 brands, supplies retail, foodservice and wholesale markets. The company faced two major problems with its operation; one was internal visibility into available inventory, both on-hand and in-transit that could be allocated to orders; and tracking actual cost of products to determine brand profitability (para 1, 5, 9, 17, 19, and 42). In summary, Berne teaches a supply chain from manufacturer to customer to include wholesale distribution. The "sales forecast" and customer requirements strongly suggest purchasing data of wholesalers since wholesalers will purchase product from the manufacturer or supplier (i.e., Kraft, Russell Stover Candies, Liberty Richter) based on their demand within the supply chain. In other words, the sales forecast and purchasing plan for this application are equivalent since the only difference is associated with the source of the information, that is, the customer or supplier. Therefore, it would have been obvious to one of ordinary skill in the art to include wholesale purchasing data of Berne with the teachings of Felthaus et al. since Felthaus et al. teach estimating sales activity of a product (col. 2, lines 51-58). Delivering the right product to the customer when the customer wants it contributes greatly to customer satisfaction. Berne teaches that in order to achieve the level of agility and responsiveness we aspire to, it is essential that we have access to accurate, real-time information and greater visibility into the entire supply chain

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(para 17). Therefore, having accurate information that allows the company to be responsive to customer's demands ensures they are producing the right product at the right time to deliver to the customer, which in turn ensures delivery of the right product to the customer when the customer want it, therefore, contributing to customer satisfaction.

- **[Claim 2]** said sampled retail sales data identifies an authorizing agent for said sales and wherein the estimated sales are attributable to said authorizing agent (Felthausen et al.: col. 4, lines 52-56, Felthausen et al. teach sales of a prescription product of a prescribing physician are sampled at a first group of the pharmacies).
- **[Claim 3]** the specialty products are pharmaceuticals and wherein the authorizing agent is a physician (Felthausen et al.: col. 4, lines 52-56, Felthausen et al. teach sales of a prescription product of a prescribing physician are sampled at a first group of the pharmacies).
- **[Claim 4 and 8]** the second product specific universe represents retail facilities not represented in the first product specific universe (Felthausen et al.: col. 5, lines 59-61, Felthausen et al. teach the outlets may be pharmacies or other type of retail stores or distribution establishments all of which distribute a particular product. The examiner interprets pharmacies or other types of retail stores representing a group and distribution establishments representing another group that is different than the other group).
- **[Claim 5 and 9]** the second product specific universe includes unsampled retail facilities (Felthausen et al.: col. 3, lines 1-5, Felthausen et al. teach the spatial correlation process between outlets is represented by the distribution pattern of each prescribers prescription activity among a local neighborhood of outlets (sample or unsampled).).
- **[Claim 6 and 10]** the unsampled retail outlets are assigned an average product specific store size based upon the sampled retail sales data (Felthausen et al.: col. 2, line 59 to col. 3, line 25, Felthausen et al. teach nearest neighboring outlet activity sources within spatial proximity of each known but unsampled outlet are identified and the estimate of unsampled outlets is assembled by processing information on the discrete spatial correlation pattern among neighboring activity sources. The distance between the selected sampled sales outlets and the unsampled sales outlets are combined with parameter characteristics characterizing each

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sales outlet to form a signal representing an estimate of sales of the product at the unsampled sales outlet.).

- **[Claim 11]** the combination of the first plurality of stores and the second plurality of stores represents substantially all of the retail outlets for the specialty product (col. 5, line 59 to col. 6, line 8, and col. 9, lines 11-43, Felthaus et al. teach the outlets may be pharmacies or other type of retail stores or distribution establishments all of which distribute a particular product.).

Claims 12-18 substantially recites the same limitations as that of claims 1-6 and 11 with the distinction of the recited method being a system. Hence the same rejection for claims 1-6 and 11 as applied above applies to claims 12-18.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Agrafiotis et al. (U.S. Patent 6,453,246) discloses a system and method for representing proximity data in a multi-dimensional space.
- Doyle et al. (Doyle et al., Optimal Growth Strategies for Service Organizations, The Journal of Business, Vol. 56, No. 3, July 1983 [JSTOR]) discloses estimating sales for an unknown entity from sales of known entities in the same area.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (703) 305-8215. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 4:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (703) 305-9643. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

**Director of the United States Patent and Trademark Office
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(703) 746-9419 [Informal/Draft communication, labeled "**PROPOSED**" or "**DRAFT**"]

Hand delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, Virginia 22202.

mch
10 September 2004


**TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**